

GNFAC Avalanche Advisory for Mon Dec 15, 2014

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, December 15 at 7:30 a.m. Today's advisory is sponsored by **Cooke City Bearclaw & Super 8** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

Mountain Weather

This latest storm did not produce consistent snowfall amounts. The Northern Gallatin Range picked up close to a foot of new snow while the Bridger Range received nearly 10 inches. Carrot Basin Snotel site in the southern Madison Range received 5 inches of new snow while the mountains around Big Sky, West Yellowstone and Cooke City squeezed out 2-3 inches. Currently, temperatures are in the single digits to mid-teens F under partly cloudy skies and winds are light out of the WSW. Today, a weak ridge of high pressure will build over the region producing clear and calm conditions with seasonal temperatures.

Snowpack and Avalanche Discussion

Bridger Range Northern Gallatin Range

The northern Gallatin Range picked up close to a foot of new snow totaling .6 inches of SWE. The Bridger Range received close to ten inches of new snow. What's interesting about the Bridger Range is – the top of the Alpine Lift at Bridger Bowl recorded only three inches of new snow while the top of Bridger Lift recorded ten inches. This is a great example of microclimates producing very localized snowfall amounts.

Fortunately, this storm arrived with very little wind and the snow fell right side up (warm to cold). This allowed the new snow to bond well to the old snow surface on most slopes. Yesterday, I skied up History Rock in the northern Gallatin Range and experienced no signs of instability ([photo](#)).

Today, the primary problem will be avalanches occurring in the new snow. Fast moving sluffs (loose snow avalanches) are likely in steep terrain. There is also the possibility of a skier or rider triggering an isolated wind slab. This problem will be most pronounced in upper elevation terrain leeward to west winds. A less likely but more serious situation will be avalanches failing at the ground ([video](#)). What's tricky about this problem is not all slopes have this unstable structure. I recommend digging a few snowpits and assessing all layers of the snowpack before committing to any steep slope.

Today, human triggered avalanches are likely on slopes steeper than 35 degrees which have a **CONSIDERABLE** avalanche danger. Less steep slopes have a **MODERATE** avalanche danger.

Madison Range Lionhead area near West Yellowstone

Cooke City

For the mountains around West Yellowstone, Cooke City and Big Sky, less snow means less avalanche danger. The snow that did fall will likely be well bonded to the old snow surface and won't be enough to overload weak snow near the ground.

This however does not mean the light is green on all slopes ([video](#)). Pockets of unstable snow still exist, mainly in upper elevation, steep-rocky terrain. I would be extra cautious if skiing or riding on any slope that appears to

be wind loaded.

Unfortunately, variable-early season conditions still exist. The likelihood of getting injured on rocks or stumps is equal if not greater than getting caught in an avalanche. No matter what the hazard, it's mandatory to bring your A game when traveling in the backcountry. Make sure everyone is prepared and always be thinking about the consequences of an avalanche.

Today, heightened avalanche conditions exist on specific terrain features and the avalanche danger is rated **MODERATE**.

Doug will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations drop us a line at mtavalanche@gmail.com or call us at 587-6984.

Have a Smartphone or Tablet? The Friends of the Avalanche Center just published two FREE apps so you can get the latest avalanche information, videos and photos: [iOS 8 GNFAC App](#); [Android app](#)

AVALANCHE EDUATION and EVENTS

Take a look at our [Education Calendar](#) for all our classes being offered.

Fundraiser at Katabatic Brewing, Tuesday, December 16, 4-8 p.m., Livingston

Avalanche Awareness and Beacon Practice, Wednesday, December 17, 6:30-8:30 p.m. at Beall Park, Bozeman

Snowmobiler Introduction to Avalanches with Field Course

West Yellowstone: Dec 18 and 19, 2014: <https://www.ticketriver.com/event/12955>

Five hours of lectures are followed by a full day field course. Topics covered include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.